

### **REMARKS**

Claims 1-9, as amended are pending in this application. In this Response, Applicants have amended certain claims. In particular, Applicants have amended claims 1-7 to clarify that the present invention relates to a computer implemented method. Applicants have also amended the written description to limit the abstract to one paragraph.

In light of the Office Action, Applicants believe these amendments serve a useful clarification purpose, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents. As no new matter has been added, Applicants respectfully request entry of the amendments at this time.

### **OBJECTIONS TO THE WRITTEN DESCRIPTION**

At page 2 of the Office Action, the Examiner objected to the abstract of the invention because it contained multiple paragraphs and refers to FIG. 2. *See* Office Action at Page 2. In response, Applicants have amended the written description to limit the abstract to one paragraph, as shown above. The Examiner also objected to the specification because of an informality, stating that the phrase “Common Tale Expression” should be “Common Table Expression.” *Id.* However, Applicants are unable to find the phrase “Common Tale Expression” on page 9, line 5, or anywhere else in the written description. For the reasons set forth above, Applicants respectfully submit that the Examiner’s objections to the written description have been overcome.

### **THE REJECTIONS UNDER 35 U.S.C. § 112**

At pages 2-3 of the Office Action, the Examiner rejected claim 2 under 35 U.S.C. § 112 as failing to comply with the enablement requirement. In response, Applicants have amended claim 2 to recite that the predetermined set of rules allows removal of a table from the list if this table is part of a join chain. The amendments to the claim are fully consistent with and enabled by the written description and the figures, including FIG. 2. In light of these amendments, Applicants submit that the Examiner’s § 112 rejections have been overcome.

### **THE REJECTIONS UNDER 35 U.S.C. § 101**

At page 3 of the Office Action, the Examiner rejected claims 1-9 under 35 U.S.C. § 101, stating that the claimed invention is directed to non-statutory subject matter. Specifically, the

Examiner stated that the claim language raises a question of whether the claims would result in a practical operation that produces a concrete, useful, and tangible result.

As recited by claims 1-7, the present invention relates to a method of preventing execution of unnecessary joins between tables in a *database*. Applicants submit that this is clearly a practical operation that satisfies the requirements of 35 U.S.C. § 101. Moreover, claims 8 and 9 recite a computer program comprising computer program code means, which Applicants submit is also a practical operation that results in a concrete, useful, and tangible result. Out of an abundance of caution, however, Applicants have amended claims 1-7 to clarify that the method recited therein is a computer implemented method. In light of the amendments to claims 1-7, Applicants submit that the Examiner's § 101 rejection has been overcome. Reconsideration and withdrawal of the rejection is respectfully requested.

#### **THE REJECTIONS UNDER 35 U.S.C. § 102**

At pages 4-7 of the Office Action, the Examiner rejected claims 1-9 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,640,221 to Levine *et al.* ("Levine"). Applicants submit that Levine does not teach the present invention for at least the reasons that follow.

Levine relates to SQL queries and statements in relational databases. *See* Col. 1, lines 8-11. SQL statements that include more than one join operation have two types of result sets: (i) a final result set; and (ii) an intermediate result set. *See* Col. 1, lines 56-58. The final result set is the final table that is generated from the tables being joined after all the join operations are executed. *See* Col. 1, lines 58-60. The intermediate result set is the intermediate table that is generated from just two of the tables (or one table and another intermediate result set) being joined in one of the join operations. *See* Col. 1, lines 60-64. Levine seeks to allow the manipulation of intermediate results sets by providing a system and method for configuring, sequencing, and viewing joins in a SQL query. *See* Abstract. The system includes a graphical user interface that displays a sequenced vertical tile list of each table and each intermediate result set in a particular query. *Id.* Through this interface, a user may re-sequence the ordering of the tables and thus reconfigure the intermediate result sets that are generated by the query. *Id.*

In contrast, the present invention relates to a computer implemented method of preventing the execution of unnecessary joins between tables in a database. *See* Amended Claim 1. The method includes presenting a SQL statement to a database. *Id.* The SQL statement has a scope that

extends to a set of tables in the database and returns a set of results from the database. *Id.* In one embodiment, the present invention includes the step of preparing a list of tables that are within the scope of the SQL statement but that are not referred to by the SQL statement. *Id.* Levine, however, does not teach, or even suggest, this feature of the present invention. Rather, Levine teaches the creation of a list of tables that are referred to by the SQL statement. *See* Col. 4, lines 11-16. In other words, Levine discloses the creation of a list that shows which tables, referred to by the SQL statement, are related. *Id.* Levine is completely silent with regard to tables that are not referred to by SQL statements.

Furthermore, Levine does not teach or suggest the prevention of unnecessary joins between tables, as asserted by the Examiner. *See* Office Action at Page 5. Instead, Levine removes tables from the first generated list and reorders them in a second list until “there are no tables remaining in the first list.” *See* Col. 4, lines 11-18. Thus, there is no inherent prevention of unnecessary joins, but instead an inherent reordering of joins such that the final result set reflects the desired SQL query. *See* Col. 7, line 51 - Col. 8, line 11.

In light of these differences, Applicants submit that the Examiner has not satisfied the burden of proving that Levine anticipates the present invention, *i.e.*, Levine does not teach each and every element of the present invention. For at least the reasons set forth above, Applicants respectfully submit that the Examiner’s rejection of independent claim 1 under 35 U.S.C. § 102(e) has been traversed. Moreover, Applicants submit that claims 2-9 are allowable, at least by virtue of their dependency from independent claim 1, but also for additional novel features described therein. Reconsideration and allowance of the pending claims is respectfully requested.

### **CONCLUSION**

All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments and remarks still do not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned agent to discuss any remaining issues.

A Petition for Extension of Time is submitted herewith extending the time for response three months to and including September 27, 2006. No other fees are believed to be due at this

time. Should any fee be required, however, please charge such fee to Bingham McCutchen LLP  
Deposit Account No. 195127, Order No. 19111.0126.

Respectfully submitted,  
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